EXHIBIT A

Dyson Tech. Ltd. and Dyson, Inc. v. *Maytag Corporation*
(Case No. 05-434-GMS (D. Del.)

EXHIBIT A

JOINT CLAIMS CONSTRUCTION CHARTS

CLAIM TERMS FROM THE ASSERTED PATENTS[1] THAT
DYSON AND/OR MAYTAG CONTEND REQUIRE CONSTRUCTION BY THE COURT[2]

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
1	'515 [14] '748 [15] '008 [1, 23]	"dirty air inlet" [to outer container]	an opening via which the dirty air sucked up by the vacuum cleaner flows into the outer container of the cyclonic apparatus *See, e.g.*: ordinary meaning of the claim language '515 patent, elements 16, 58, 86; Col. 4:38-43; Col. 5:59-62; Col. 5:64-67; Col. 6:66-7:1; Col. 7:55-56; Col. 12:24-25 '748 patent, elements 13b and 13c; Col. 1:64-2:5; Col. 2:42-46; Col. 3:18-21; Col. 6:20-21 '008 patent, element 13b; Col. 2:1-4; Col. 2:59-62; Col. 3:40-41; Col. 3:63-65; Col. 4:5-6	a passage by which dirty air flows into the outer container of the cleaning apparatus *See, e.g.:* ordinary meaning of the claim language '515 patent, elements 16, 57, 86; col. 4, ll. 59-65; col. 5, l. 64 – col. 6, l. 2; col. 6, l. 66 - col. 7, l.1 '748 patent, element 13b; col. 3, ll. 18-19 '008 patent, element 13b; col. 2, ll. 59-62

[1] The patents asserted in this action by Dyson are: (1) U.S. Patent No. 4,643,748 ('748 patent); (2) U.S. Patent No. 4,826,515 ('515 patent); (3) U.S. Patent No. 4,853,008 ('008 patent); and (4) U.S. Patent No. 5,858,038 ('038 patent).

[2] The parties reserve all arguments regarding application of the doctrine of equivalents and/or prosecution history estoppel to any term of the asserted patents.

[3] The Claims in which the terms to be construed appear are listed in brackets following the patent number. Unless otherwise indicated, the constructions advanced by the parties are intended to apply to every instance where a construed term is used within each patent for which the term is listed. To the extent a different form of a term appears elsewhere in the claims, the constructions advanced by the parties are intended to apply, as modified appropriately to account for the difference in form.

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
2	'515 [14] '748 [15]	"an upper portion of the outer container"	a portion of the outer container that is above the midline of the outer container *See, e.g.*: ordinary meaning of the claim language '515 patent, Col. 5:3; Col. 5:17-18; Col. 6:8; Col 6:46-47; Col. 8:44-46; Col. 11:36-12:12 '748 patent, Col. 4:35-37; Col. 6:17-54	at or near the top of the outer container *See, e.g.*: ordinary meaning of the claim language '515 patent, elements 16, 57, 86 as shown in drawings '748 patent, elements 13b, 13c as shown in drawings
3	'515 [14] '748 [15] '008 [1, 23]	"oriented for supplying dirt laden air into the container tangentially to the interior surface of the outer container"	configured to allow dirt laden air sucked up by the vacuum cleaner to flow into the container tangentially to the interior surface of the container *See, e.g.*: ordinary meaning of the claim language '515 patent, Col. 4:3-48 '748 patent, Col. 2:39-45; Col. 5:23-24; Col. 5:65-66; Col. 6:64-65 '008 patent, Col. 2:1-3; Col. 3:36-39; Col. 4:63-65; Col. 5:47-49; Col. 7:3-5	arranged to cause dirt laden air to enter the container in a direction perpendicular to the radius of the interior surface of the outer container at its point of entry *See, e.g.*: ordinary meaning of the claim language '515 patent, drawings and col. 5, ll. 64-67; col. 4, ll. 59-62 '748 patent, Fig. 1 and col. 2, ll. 14-15 '008 patent, Fig. 1 and col. 2, ll. 59-62
4	'515 [14] '748 [15]	"an air outlet from the container at an upper portion of the container"	an air outlet in the upper half of the outer container through which the air circulating in the outer container can move from that container into the inner, cone-shaped cyclone mounted within the container *See, e.g.*: ordinary meaning of the claim language '515 patent, Fig. 5; element 25; Col. 5:3-11; element 66; Col. 5:17-18; Col. 6:8; Col. 6:13-17; elements 90 and 91; Col. 6:46-47; Col. 6:62 – 7:4; Col. 11:36-12:12 '748 patent, abstract; element 13d; Fig. 1; Col. 1:7-9; Col. 1:23-26; Col. 2:26-38;	an air outlet from the container at or near the top of the container *See, e.g.*: ordinary meaning of the claim language '515 patent, Fig. 5; col. 6, l. 62 - col. 7, l. 7 '748 patent, Fig. 1; col. 3, ll. 11-26

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
			Col. 3:11-26; Col. 3:50-54; Col. 6:17-54	
5	'515 [14] '748 [15] '008 [1, 23]	"a cyclone air inlet at an upper end . . . of the cyclone in air communication with the air outlet of the container"	an air inlet near the top of the inner cyclone into which air from the outer container's air outlet can pass *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; elements 22, 63, 94 and 109; Col. 2:38-41; Col. 5:3; Col. 5:17-18; Col. 6:8; Col. 6:46-47 '748 patent, Fig. 1; element 13f; Col. 3:18-21 '008 patent, Fig. 1; Col. 2:59-63; Col. 2:66	an air inlet at the top of the cyclone, having a first diameter, in air passing communication with the air outlet of the container *See, e.g.*: ordinary meaning of the claim language '515 patent, Fig. 5; col. 6, l. 57 – col. 7, l. 20 '748 patent, Fig. 1; col. 3, ll. 10-26 '008 patent, Fig. 1; col. 2, ll. 50 – col. 3, l. 68; col. 3, ll. 40-56
6	'515 [14] '748 [15] '008 [1, 23]	"which has a circular cross section"	the outer container has a circular cross section *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3 and 5; elements 14, 51 and 80; Col. 3:39-40; Col. 4:54-57; Col. 4:68; Col. 5:59-63; Col. 6:5; Col. 6:35-37; Col. 6:62-63; Col. 11:43-44 '748 patent, Fig. 8; element 11; Col. 1:58-61; Col. 1:67 – 2:3; Col. 2:43-47; Col. 6:23-24 '008 patent, Fig. 1; element 11b; Col. 1:66 – 2:4; Col. 2:54-56; Col. 4:7-8; Col. 5:24-25; Col. 6:16-17	the dirty air inlet has a circular cross section *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5; col. 4, ll. 59-65; col. 5, l. 64 – col. 6, l. 2; col. 6, l. 57 – col. 7, l. 4 '748 patent, Fig. 1; element 13b; col. 3, ll. 11-26 '008 patent, drawings; elements 13c and 14; col. 2, l. 50 – col. 3, l. 5

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
7	'515 [14] '748 [15] '008 [1, 23]	"maintaining its velocity to a cone opening smaller in diameter than the diameter of the upper end of the cyclone"	the conical shape of the cyclone assists in keeping the air flow moving as it makes its way from the air inlet at the top of the cyclone to the smaller cone opening at the bottom of the cyclone. *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; Col. 2:42-46; Col. 3:14-18; Col. 4:9-13; Col. 8:1-4 '748 patent, Fig. 1; Col. 2:9-13; Col. 3:27-42 '008 patent, Fig. 1; Col. 2:10-13	the frusto-conical shape of the cyclone serves to keep the air flow at a constant velocity or speed as it makes its way from the air inlet at the top of the cyclone to the smaller cone opening at the bottom of the cyclone *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5, 6; col. 2, ll. 38-63; col. 3, ll. 3-42; col. 4, ll-3-15 '748 patent, Fig. 1; col. 1, l. 64 – col. 2, l. 37; col. 3, ll.10-42 '008 patent, Fig. 1; col. 1, l. 64 – col. 2, l. 47
8	'515 [14] '748 [15] '008 [1, 23]	"the air inlet being oriented for supplying air tangentially to the surface"	the air inlet to the inner cyclone being oriented such that the air flows from the outer container into the inner cyclone tangentially so that it rotates around the inner surface of the inner cyclone *See, e.g.*: ordinary meaning of the claim language '515 patent, Figs. 1, 3, 5 and 6; elements 22, 63, 94 and 109; Col. 2:38-41; Col. 5:19-26; Col. 7:1-4 '748 patent, Col. 3:11-26; Col. 5:23-24; Col. 5:65-66; Col. 6:64-65 '008 patent, Fig. 4; Col. 1:62-63; Col. 3:36-48; Col. 4:63-65; Col. 5:47-49; Col. 7:3-5	the air inlet is arranged to supply air to the surface in a direction perpendicular to the radius of the surface *See, e.g.*: ordinary meaning of the claim language '515 patent; Figs. 3, 4, 5; col. 6, l. 66 – col. 7, l. 20; col. 6, ll. 9-30; col. 5, ll. 4-25 '748 patent, Fig. 1; element 13h; col. 3, ll. 11-26 '008 patent, Fig. 4; col. 3, ll. 40-56

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
9	'748 [15] '008 [1, 23]	"a dirt receiving and collecting chamber extending from the cone opening"	a chamber for receiving and collecting dirt that starts at the cone opening or a portion of the outer surface of the cyclone *See, e.g.*: ordinary meaning of the claim language '748 patent, Fig. 1; element 15; Col. 2:18-26; Col. 3:29-41 '008 patent, Fig. 1; element 20; Col. 3:6-21	a chamber for receiving and collecting dirt extending from the cone opening *See, e.g.*: ordinary meaning of the claim language '748 patent, Fig. 1;col. 3, ll. 27-42 '008 patent, Fig. 1; col. 3, ll. 6-21
10	'515[14]	"means for generating an airflow"	a motor driven fan unit and equivalents *See, e.g.,* '515 patent, elements 13, 54 and 121; Col. 2:57-63; Col. 3:32-38; Col. 4:50-54; Col. 5:57-58; Col. 6:50-55; Col. 7:19-20; Col. 8:13-16; Col. 8:44-46	a motor driven fan unit positioned vertically above and immediately adjacent the cyclone outlet port *See, e.g.*: '515 patent, elements 13, 54, and 121 in the specification and drawings; Figs. 1, 3, 5, 6
11	'748 [15]	"a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone"	a disc which is on the outside of the inner cyclone between the dirt collection chamber and the air outlet of the outer container and around the longitudinal axis of the inner cyclone *See, e.g.*: ordinary meaning of the claim language '748 patent, Col 3:1-4; Col. 4:35-37; Col. 6:47-54; Col. 6:57-66	a disc positioned on the outside surface of the cyclone, the disc having a detent in a smaller opening that engages an attachment ring on the cyclone, the disc having a downwardly tapered wall and an annular flange extending toward the inside wall of the container, the disc being midway between the receiving and collecting chamber and the air outlet of the container and around the longitudinal axis of the cyclone. *See, e.g.*: '748 patent, Figs. 1 and 2; col. 3, ll. 43-54; col. 4, ll. 26-28

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
12	'008 [1, 23]	"a shroud means mounted on and around the outer surface of the cyclone and having opposed ends along the longitudinal axis and providing for outlet air from the container into the air inlet to the cyclone"	a shroud designed to act as an air outlet from the outer container to the air inlet of the inner cyclone which is mounted on and around the outer surface of the cone-shaped inner cyclone and has opposing ends along the longitudinal axis of the inner cyclone *See, e.g.*: ordinary meaning of the claim language '008 patent, Figs. 1 and 2; Col. 1:19-49; Col. 2:26-47; Col. 3:66-68; Col. 4:31-45; Col. 6:38-53	a combined integral shroud and disc unit provides for outlet air from the container into the air inlet to the cyclone, and includes a cone-shaped disc with a larger downwardly tapered portion facing the bottom of the container, the unit being tapered with walls parallel to the outside of the cyclone, the walls ending in a flange that surrounds and encloses the passage to the inner cyclone, and the disc having a downwardly inclined angle between about 97.5° to 110° from a central axis of the unit. *See, e.g.*: '008 patent, Figs. 1-4; title; col. 1, ll. 14-33; col. 3, ll. 22-39
13	'008 [1, 23]	"wherein the shroud means is mounted at one end below the air inlet to the cyclone and extends along the outer surface with the other end at a position intermediate to the cone opening and the air inlet to the cyclone"	the shroud is positioned below the air inlet to the cone-shaped cyclone and extends along the outer surface of the inner cyclone to a position somewhere before the cone opening at the bottom of the inner cyclone *See, e.g.*: ordinary meaning of the claim language '008 patent, abstract; Figs. 1 and 2; elements 12c, 13k, and 30; Col. 1:13-34; Col. 1:35-49; Col. 1:65-2:47; Col. 3:22-36	No construction required – ordinary meaning of the claim language
14	'008 [1, 23]	"wherein the shroud means has perforations adjacent to the position intermediate to the cone opening for the flow of air from the outer container to the cyclone inlet"	the shroud has perforations near the end of the shroud closest to the cone opening, so that air can pass through the perforations to the air inlet of the inner cyclone *See, e.g.*: ordinary meaning of the claim language	No construction required – ordinary meaning of the claim language

Term No.	Asserted U.S. Patent(s) and Claim(s)[3]	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
			'008 patent, Figs. 1 and 2; Col. 1:35-49; Col. 1:65-2:47; Col. 3:22-36; Col. 3:57-65	
15	'008 [1, 23]	"disc means provided on the shroud means at a lower longitudinal extent of the shroud means and the air inlet of the cyclone and around the axis of the cyclone"	a disc that surrounds the axis of the inner cyclone and touches the bottom portion of the shroud, so that the air inlet is above the shroud and the disc is at a lower longitudinal extent of the shroud Intrinsic Evidence: ordinary meaning of the claim language *See, e.g.*, '748: Fig. 1; '008: Fig. 2, Col. 1:24-30; Col. 2:41-47; col. 4:35-36; Col. 4:46-48; Col. 4:46-48	No construction required – ordinary meaning of the claim language
16	'038 [1]	"having a tangential air inlet located at or adjacent the end of the cyclone having the larger diameter"	a tangential air inlet at or adjacent the end of the inner cyclone having the larger diameter, which is the end of the inner cyclone nearest the top of the container *See, e.g.*: ordinary meaning of the claim language '038 patent, Figs. 1a and 3a; element 16; Col. 1:20-22; Col. 2:50-55	having an air inlet in a direction perpendicular to the radius of the cyclone located at or adjacent the end of the cyclone having the larger diameter *See, e.g.*: ordinary meaning of the claim language '038 patent, Figs. 1a and 3a; element 16; col. 2, l. 50 – col. 3, l. 7

CLAIM TERMS FROM THE ASSERTED PATENTS ON WHICH
DYSON AND MAYTAG HAVE REACHED AGREEMENT ON CONSTRUCTION

Term No.	Asserted U.S. Patent(s) and Claim(s)	Term	Agreed Construction
1	'515 [14] '748 [15] '008 [1, 23]	"a circular cross-sectioned cyclone"	a circular cross-sectioned device that uses centrifugal force to separate materials from the air
2	'515 [14] '748 [15] '008 [1, 23]	"a cyclone air outlet communicating with the interior of the cyclone adjacent the upper end of the cyclone"	an outlet into which air within the interior of the cyclone enters adjacent to the upper end of the cyclone
3	'515 [14] '748 [15] '008 [1, 23]	frusto-conical shape	a cone-shape that has its tip cut off parallel to its base
4	'515 [14]	"a dirt receiving and collecting chamber extending from the bottom of the container to a portion of the outer surface of the cyclone"	a chamber for receiving and collecting dirt that extends from the bottom of the container to a portion of the outer surface of the cyclone
5	'515 [14]	"wherein the receiving chamber has a circular cross-sectioned inner surface around the axis with a minimum diameter furthest from the cone opening of 3 times the diameter of the cone opening"	wherein the dirt receiving and collecting chamber has a circular cross-sectioned inner surface around the axis, with a diameter furthest from the cone opening of at least 3 times the diameter of the cone opening

Term No.	Asserted U.S. Patent(s) and Claim(s)	Term	Agreed Construction
6	'515 [14]	"ring seal means between the chamber and outer container"	a ring-shaped seal between the chamber and outer container
7	'515 [14]	"the air flow rotating around the frusto-conical interior surface of the cyclone and the inner surface of the receiving chamber and depositing dirt in the receiving chamber"	[Note: The parties agree that the "receiving chamber" in this term is the "dirt receiving and collecting chamber" referenced earlier in the claim.]
8	'038 [1]	"a frustoconical cyclone"	a cone-shaped cyclone that has its tip cut off parallel to its base

EXHIBIT B

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DYSON TECHNOLOGY LIMITED and DYSON, INC.	)	Case No. C.A. 05-434-GMS
Plaintiffs,	)	
v.	)	
MAYTAG CORPORATION,	)	
Defendant	)	

DEFENDANT MAYTAG CORPORATION'S OPENING CLAIM CONSTRUCTION BRIEF

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Dated: May 26, 2006

Term No. 10

The contentions of the parties regarding Term No. 10 are reproduced directly below.

Term No.	Asserted U.S. Patent(s) and Claim(s)	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
10	'515[14]	"means for generating an airflow"	a motor driven fan unit and equivalents *See, e.g.,* '515 patent, elements 13, 54 and 121; Col. 2:57-63; Col. 3:32-38; Col. 4:50-54; Col. 5:57-58; Col. 6:50-55; Col. 7:19-20; Col. 8:13-16; Col. 8:44-46	a motor driven fan unit positioned vertically above and immediately adjacent the cyclone outlet port *See, e.g.:* '515 patent, elements 13, 54, and 121 in the specification and drawings; Figs. 1, 3, 5, 6

The term "means for generating an airflow," is a means-plus-function limitation under 35 U.S.C. § 112, ¶ 6. The presumption is clear, since the word "means" is followed by the function performed by the means. Accordingly, this claim term is to be construed to include all of the structure required for performing the recited function of "generating an airflow." While the parties agree that the structure is at least "a motor driven fan unit [and equivalent]," there is more to the structure than that. The motor is specifically positioned as set forth in the patent. The parties agree that the motor driven fan units of the various embodiments of the '515 patent are the elements 13, 54 and 121. As shown in each of Figs. 1, 3 and 5 of the '515 patent, the motor driven fan unit is necessarily positioned vertically above and immediately adjacent the cyclone outlet port. See, for example, the motor driven fan unit 13 and the outlet port or tube 35 in Fig. 1, the motor 54 and outlet tube 77 of Fig. 3, and the motor driven fan 121 and outlet port 105 of Fig. 5. (JA 2-4). All of the embodiments of a "means for generating an airflow" presented in the '515 patent include a motor driven fan unit positioned vertically above and immediately adjacent the cyclone outlet port. Clearly, this is the necessary structure for achieving the desired airflow referenced in claim 14 as passing "sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet." Accordingly,

this is the necessary structure "for generating an airflow" in the context of the claim and this means-plus-function limitation should be so construed.

Term No. 11

The contention of the parties regarding Term No. 11 are reproduced directly below.

Term No.	Asserted U.S. Patent(s) and Claim(s)	Term	Dyson's Proposed Construction and Intrinsic Evidence	Maytag's Proposed Construction and Intrinsic Evidence
11	'748 [15]	"a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone"	a disc which is on the outside of the inner cyclone between the dirt collection chamber and the air outlet of the outer container and around the longitudinal axis of the inner cyclone *See, e.g.*: ordinary meaning of the claim language '748 patent, Col 3:1-4; Col. 4:35-37; Col. 6:47-54; Col. 6:57-66	a disc positioned on the outside surface of the cyclone, the disc having a detent in a smaller opening that engages an attachment ring on the cyclone, the disc having a downwardly tapered wall and an annular flange exten ding toward the inside wall of the container, the disc being midway between the receiving and collecting chamber and the air outlet of the container and around the longitudinal axis of the cyclone. *See, e.g.*: '748 patent, Figs. 1 and 2; col. 3, ll. 43-54; col. 4, ll. 26-28

This is a means-plus-function limitation under 35 U.S.C. §112, ¶ 6. The word "means" is followed by the stated function "retards long strands in the dirt from clogging the air outlet and retains the strands in the container." *See* '748 patent, claim 15, final 3 lines. (JA 21). Accordingly, the limitation must be construed to include all the structure necessary for achieving the recited function, plus its equivalent. The '748 patent clearly defines this very specific disc at col. 3, ll. 43-54 and col. 4, ll. 26-28. (JA 20). It is also shown in Figs. 1 and 2 of the patent. (JA 15-16). Indeed, these portions of the specification recite that the "disc 20 retards long strands, such as hair, from moving upwards into the air outlet," and further the "disc 20 retards the flow of strands of dirt into the shroud 21." (JA 20). Certainly, not just any disc will perform this function. Indeed, that is not the purpose of a disc. The structure of a disc capable of performing

EXHIBIT C

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DYSON TECHNOLOGY LIMITED and DYSON, INC, Plaintiffs, v. MAYTAG CORPORATION, Defendant.	)	CIVIL ACTION NO.: 05-434 (GMS)

DEFENDANT MAYTAG CORPORATION'S RESPONSE TO PLAINTIFFS' OPENING CLAIM CONSTRUCTION BRIEF

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Dated: June 9, 2006

The time for writing claims is well past, they are now only to be construed and, indeed, the term in issue hardly requires construction.

Term No. 10

Dyson seeks to distance itself from the fact that this claim limitation is in a means-plus-function format. That format requires that the limitation be construed to include all the structure necessary to perform the claimed function, a fact acknowledged by Dyson in its brief. The structures of all of the embodiments of the '515 patent position the motor driven fan unit vertically above and immediately adjacent the cyclone outlet port. They do this for a very important reason, to effect the airflow referenced in claim 14 as passing "sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet." (JA 11). It is not just a motor and fan that generates an airflow in the context of the claim, it is a motor and fan very specifically positioned. Otherwise, the path referenced in claim 14 would simply not work. Indeed, the function associated with this claim term is not simply "generating an airflow," but a very specific airflow "which passes sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet, the flow rotating around the frustro-conicle surface of the cyclone and the inner surface of the receiving chamber" so that the dirt is deposited in the receiving chamber. This claim limitation is extremely detailed as to the airflow path, and the patent makes it clear that this path is achieved by the particular positioning of the motor and fan unit vertically above and immediately adjacent the cyclone outlet port.

Term No. 11

Dyson contends that the claimed "disc means" that "retards long strands in the dirt from clogging the air outlet and retains the strands in the container" is not a means-plus-function

EXHIBIT D

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DYSON TECHNOLOGY LIMITED and DYSON, INC. Plaintiffs, v. MAYTAG CORPORATION, Defendant.	)	C.A. No. 05-434-GMS

PLAINTIFFS' RESPONSE TO MAYTAG'S OPENING CLAIM CONSTRUCTION BRIEF

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June 9, 2006

Term # 9 "a dirt receiving and collecting chamber extending from the cone opening"

In view of the patent specifications and drawings, it is appropriate to clarify, as Dyson's proposed construction does, that the words "extending from a cone opening" do not mean that the dirt collection chamber *must* start at the cone opening. Dyson Br. at 17-18. Nothing in the applicable patents requires the dirt collection chamber to start at the cone opening, and such a construction would improperly exclude the preferred embodiments of the patents. *Vitronics*, 90 F.3d at 1583 (construction that excludes preferred embodiment "is rarely, if ever, correct").

Term # 10 "means for generating an airflow"

Although this term is a means-plus-function limitation, the only part of the structure from the written description needed to perform the claimed function—generating an airflow—is the "motor driven fan unit." Dyson Br. at 18-19. Maytag baldly asserts that positioning the motor driven fan unit vertically above and immediately adjacent to the cyclone outlet port "is the necessary structure for achieving the desired airflow referenced in claim 14 as passing 'sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet.'" Maytag Br. at 17. But that same air flow is described in all of the patents-in-suit (*see, e.g.*, '748 patent, col. 6:40-45; '008 patent, col. 4:23-28 & col. 6:31-37; '038 patent, col. 1:19-33), and Maytag does not claim that those patents require that the motor driven fan unit be positioned vertically above and immediately adjacent to the cyclone outlet port. Indeed, the motor driven fan unit is shown below the container in the drawings of the preferred embodiment of the '008 patent. *See* '008 patent, Fig. 1, element 19 (JA23). The air in the cyclonic apparatus of the infringing Hoover Fusion vacuum cleaner also flows in this sequence (*see* Jones Aff. ¶ 38 (D19-20); ¶ 45 (D24);

¶ 59 (D29)), and its motor driven fan unit is located below the container, not vertically above it.

Term # 11 "a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone"

This claim term is not a means-plus-function limitation,[4] and should be construed in the manner proposed by Dyson. *See* Dyson Br. at 19-22. Maytag's contrary argument ignores that Claim No. 15 of the '748 patent states not only the function of the disc means, but also its structure, location and extent. *Id.* at 20-21. As Dyson explained in its opening brief, a "disc means," by its very name, is understood to be "a thin circular object." Moreover, Claim No. 15 specifies the location of the disc (on the outside surface of the inner cyclone, between the dirt collection chamber and the air outlet of the outer container, and around the longitudinal axis of the inner cyclone) and its extent (there must be a physical space between the disc and the interior wall of the outer container so that air can pass through that space). *See* '748 patent, col. 6:47-54 (JA21); Jones Aff. ¶¶ 47-48 (D24-25).

Maytag's assertion that Claim No. 15 of the '748 patent requires use of a disc shaped like the disc described in the preferred embodiment is contradicted by the very intrinsic evidence Maytag cites. Maytag Br. at 18-19. The portion of the patent specification cited by Maytag expressly states: "The disc 20 can have any shape which is circular around the axis a-a and leaves an air passage." Maytag's proposed construction also would limit the disc in Claim No. 15 to one that has "a downwardly tapered wall and

[4] Maytag concedes in its opening brief that the claim need not be read as a means-plus-function limitation simply because it uses the words "disc means." *See* Maytag Br. at 23 ("Neither Dyson nor Maytag contend that the disc means of this limitation is written in the means-plus-function format of 35 U.S.C. § 112, ¶ 6.").

EXHIBIT E

IN THE UNITED STATES DISTRICT COURT

IN AND FOR THE DISTRICT OF DELAWARE

- - -

DYSON TECHNOLOGY LIMITED and DYSON, INC.,	:	Civil Action
Plaintiffs,	:	
v.	:	
MAYTAG CORPORATION,	:	
Defendant.	:	No. 05-434 (GMS)

- - -

Wilmington, Delaware
Tuesday, July 11, 2006
10:00 a.m.

- - -

BEFORE: HONORABLE GREGORY M. SLEET, U.S.D.C.J.

APPEARANCES:

JOHN W. SHAW, ESQ.,
ADAM W. POFF, ESQ., and
C. BARR FLINN, ESQ.
Young Conaway Stargatt & Taylor, LLP
-and-
RICHARD C. PEPPERMAN, II, ESQ.,
KEITH McKENNA, ESQ., and
JAMES WILLIAMS, ESQ.
Sullivan & Cromwell LLP
(New York, N.Y.)

Counsel for Plaintiffs

there is a dispute here, it's over the meaning of the phrase extending from the cone opening. Our concern is that absent some clarification, that this term could be read as saying that the dirt collection chamber begins at the opening of the inner cyclone or cone. And our clarification, I have a picture, this is Figure 1 from the '748 patent, and our concern was, in reading the phrase that the dirt collecting and receiving chamber extends from the end of the cone opening, that the jury might conclude that the dirt collecting and receiving chamber needs to start right here at the bottom of the cone opening. But it is clear from the figures that it actually starts at a point farther up the cone opening.

There is no dispute between the parties that the patents don't require the dirt collecting receiving chamber to start right here at the end of the cone opening. Maytag doesn't claim that. So I don't think we have a dispute as to the application of this term to the products in this case.

But we propose a construction that we think makes clear that the dirt collection chamber has to start either at the bottom of the cone opening or at some place up on the cone.

The next three terms, Your Honor, that I will go into all involve questions relating to whether the terms are

a means-plus-function limitation. The first term, Term 10, means for generating an air flow, this term is used in Claim 14 of the '515 patent. And the parties agree that this is a means-plus-function. Under 35 U.S.C. Section 112, Paragraph 6, what we need to do is identify the structure --

THE COURT: I know what you need to do, counsel. Get on with your argument.

MR. PEPPERMAN: What we are looking for is the structure that performs the claimed function, generating air flow. The important thing, as the Court obviously knows, is you need identify only the structure that is necessary to perform that function. You need not identify more than what is necessary.

Here, our position is that the only thing that is necessary from the specification to generate air flow is a motor driven fan unit. And Maytag's position is that what is necessary is not only a motor driven fan unit or its equivalent but a fan unit that's positioned vertically above and immediately adjacent the cyclone outlet port.

They claim that that exact position is necessary, because absent that exact position, the air flow won't be exactly in the sequence described in Claim 14.

If you look at Claim 14 of the '515 patent, it talks about the air passing sequentially through the dirty air inlet, the container, the cyclone air inlet, the

cyclone, the receiving chamber, and back up through the cyclone air outlet. They say that the motor, or the fan unit needs to be positioned exactly there in order to generate the sequential air flow.

Your Honor, a couple of things. One, there is no support for that assertion that that exact position is necessary in order to generate that sequence of air flow. Even more to the point, Your Honor, that same air flow is described, I believe, in all of the other patents in suit, and yet in none of those other patents is there a claim that the fan unit needs to be in a specific position. Actually, Your Honor, if you look at Figure 1 of the '008 patent, which describes this same sequential air flow, the fan unit there is located, I think, at the bottom of the container. And in the accused product here, I don't think there is any dispute that the air flows in this sequence described in Claim 14, and there the fan unit again is located at the bottom of the container.

So I think this is proof that the only structure that is necessary for generating an air flow is a fan unit or its equivalent, and it can be positioned anywhere. It can be positioned above the cyclone outlet port or, as in Figure 1 of the '008 patent, or the accused product, the fan unit can be located below the container.

The position of the fan unit is not necessary.

Your Honor, this next slide is the point I just made. In Figure 1 of the '008 patent, the fan unit is Element 19. It is shown to be below the container.

The next term, Term 11, which talks about a disc means provided on the outside of the cyclone, here, Your Honor, there are two disputes. There is a dispute of disc means and whether that is a means-plus-function. And also, you will see on the next slide, there is also a dispute about the meaning of the word intermediate.

THE COURT: Why isn't it a means-plus-function?

MR. PEPPERMAN: Okay, Your Honor. Here, the reason is that the patent claims themselves specify in detail what the structure, location and extent is that is needed to perform the specified function. Here, the structure that is needed is simply a disc. And a disc is, the common meaning of it is a thin circular object. And the claims also specify the exact location of the disc. Under the claims, the disc has to be on the outside surface of the inner cyclone, between the dirt collection chamber and the air outlet of the outer container, and around the longitudinal axis of the inner cyclone.

The claims also describe the extent that the disc needs to be in such a position that there is physical space between the disc and the wall of the outer container, such that air can flow up through there.

MR. PEPPERMAN: I misspoke in response to a question from the Court. I want to clarify that.

When we were discussing the inner cyclone, the Court asked whether there was any support in the claims for saying the inner cyclone as opposed to simply the cyclone. We make this point in our briefs. I just simply forgot it. The claims do talk about there being an outer container and a cyclone mounted inside the container. That is our support in the claims for the phrase inner cycle.

THE COURT: Thank you, counsel.

MR. WEBER: To address that real quickly, Your [illegible]r, when you generate a new term like inner cyclone in a [illegible]laim, it suggests that there is also an outer cyclone, [illegible]ther of which are mentioned in the claims. As I [illegible]derstand, we are here of course to talk about the claims.

Just very briefly, Mr. Pepperman did a fine job on talking about cycloning technology. But I want to make sure that the Court understands, as I am sure it does, that this cyclonic technology is old technology. This is not something new. This is from the twenties, thirties. I have even seen patents from the early 1900's on cyclonic technology.

What we are talking about here today, and throughout this case, is some minor modifications and changes or tweaks, if you will, to the basic technology of

cyclonic cleaning.

Just a few comments, Mr. Pepperman certainly did a fine job in his presentation. But it was apparent to me that Mr. Pepperman's presentation, and their briefs as well, have attempted to construe the claims with reference to the accused product, not with reference to the patent specification and the patent drawings. The time for drafting claims is well, well gone. That happened 15 years ago or so with these patents. Right now, to say, gee, I wish we had said this, I wish we had said that, I wish the claim didn't say this, we are just a little bit too late for that.

Also -- and I know this Court handled many, many patent cases, but just for the record -- as we all know, the basic rule of claim construction is that claim terms are to be given their ordinary and customary meaning unless there is a clear disavowal of that meaning, unless there is a clear intent to adopt some other meaning or to import another meaning, where the inventor has chosen to be his own lexicographer.

I don't see that having happened here. I think that generally all these terms, of course, except for the means-plus-functions, can be accorded their ordinary and customary meaning. I haven't seen any proffer of a disavowal of any type.

I would also make as one other comment that, we have four patents in issue here. We have to construe the claims of each of the patents with respect to that patent and that patent alone. It is certainly improper to make reference to Patent A when you are construing a means-plus-function of Patent B.

With that being said, Your Honor, I am going to try to walk through these terms in the same numerical order as Your Honor presented them, with more attention to some and less attention to others.

The first term, of course, is the dirty air inlet. And the patents themselves make it clear that the referenced element is consistently referred to as a dirty air inlet passage. Nowhere in the patents is it ever said that it is an opening. It's always a dirty air inlet passage.

If you go to the specification and you look there and you see it is a dirty air inlet passage, dirty air inlet passage, clearly, when you get to the claims, it is the dirty air inlet. And dirty air inlet has never been defined in the spec other than a dirty air inlet passage.

It is rather clear that what was taught in the specification, what was claimed in the claim, was a passage, not an opening.

I would also hasten to add, and Mr. Pepperman

But it certainly isn't this either/or, starts at the cone opening or a portion of the outer surface of the cyclone.

Again, sometimes I think when we try to construe these claims we make life more difficult, thinking that I am going to explain this to the jury. I tell the young people in our office, you write these claims so that a juror with a high school education will be able to understand it some day. I think that they can understand that. I think given its ordinary and customary meaning, that is where it should be.

Why don't we look at Term 10. Here we have means for generating an air flow. The parties agree, this is a 112, Paragraph 6 means-plus-function. And as such, I think the law is pretty clear that you have to look at all of the structure necessary for performing the recited function. And in that regard, the parties agree that at least it is a motor-driven fan. So so far we are moving along pretty good. Then the wheels start to fall off of the wagon, because when you look at the remainder of the claim, if we could look at 14e of the '515 patent, means for generating an air flow, that is where we are at, which passes sequentially.

So it's an air flow, it's not just any old air flow. It's a means for generating an air flow which passes

sequentially through the dirty air inlet, the container, the cyclone air inlet, the cyclone, the receiving chamber and the cyclone air outlet. Boom. And you put the fan right at the cyclone air outlet. That's a pretty specific definition in the claim function. And when you go to the specification and the drawings and you look at it, that motor fan assembly is always positioned, it's always positioned vertically above and immediately adjacent the cyclone outlet port. That's it. The cyclone air outlet, that's where that path is, that's where that function ends. And the reason it ends there is because that is where the fan is.

THE COURT: Does the fan have to be there, or does that run the risk of importing a limitation into the specification?

MR. WEBER: You do import a limitation into the specification on Claim 112, Paragraph 6.

THE COURT: That is true.

MR. WEBER: That is what I am doing. I am saying, you chose to make this a means-plus-function limitation. Mr. Maytag didn't. Mr. Dyson -- I don't know if there was a Mr. Maytag. But anyway, Maytag didn't. Dyson did. When I construe it, that's where I end up. And that's what every embodiment that they have got there is showing, that that is the way that you do it.

Could you do it some way else? Absolutely.

Could you put that fan somewhere else? You certainly could. But that isn't what they taught in the specification. And they chose a 112, Paragraph 6. And that's the way you got to construe it.

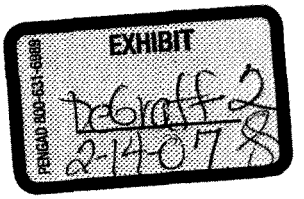
Let's look at Term No. 11: a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around the longitudinal axis of the cyclone. If you looked at -- in fact, we should probably do it just to make the record clear -- if you look at the '748 patent, Claim 15, the last paragraph. Claim 15, we have disc means, and that whole paragraph is talking about disc means and the function it performs, retards long strands in the dirt from clogging the air outlet and retains the strands in the container.

Takes you a little while to get to the function, but they got a means-plus-function. And it is a disc means. And you go to the specification, you say, well, what is the disc means?

And you find that it's the structure -- we should go on back now, I guess, to -- do this for me, Greg. Go to '748, Column 3, Lines 43 to 54.

I want to show where we took the language from for the claim construction, Claim 3, Lines 43 to 54, that's what defines this disc. That does what? Retards long strands such as hair moving upwards, yada, yada, yada. That

EXHIBIT F



IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

DYSON TECHNOLOGY LIMITED and DYSON, INC.,	)	CIVIL ACTION NO.: 05-434 (GMS)
Plaintiffs,	)	
v.	)	
MAYTAG CORPORATION,	)	
Defendant.	)	

EXPERT REPORT OF CHARLES D. DEGRAFF

the ring seal "between the chamber and outer container," when it contends the ring seal is a part of the collecting chamber - - indeed, the part of the chamber that Jones erroneously measured when determining the "minimum . . . of 3 times" relationship.

Element 14.17 – "means for generating an air flow"

As the Court has properly construed this term, it is clear that the Hoover Fusion vacuum cleaner does not satisfy this element or limitation. In the context of the '515 patent, "means for generating an air flow" is limited to "a motor driven fan unit positioned vertically above and immediately adjacent to the cyclone outlet port." The Hoover Fusion motor driven fan unit is opposite that position. The Jones Report states that "the only purpose served by positioning the motor driven fan unit vertically above and immediately adjacent to the cyclone outlet port is to ensure that the fan unit is downstream of the cyclonic apparatus . . ." In fact, the closer the motor driven fan unit is positioned to the cyclone outlet port, the more efficient the system will be. Since there are inherent losses in tubes, conduits, passages and the like, the further that the motor driven fan unit is positioned from the outlet port of the cyclone, the less efficient the system will necessarily be. The Hoover Fusion vacuum cleaner, by having its motor driven fan unit below and distant from the cyclone outlet port, is necessarily less efficient than if it were positioned according to the patent claim. Accordingly, the "means for generating an airflow" in the Hoover Fusion vacuum cleaner is not the equivalent of that of the patent claim.

B. Non-Infringement of the '748 Patent

Key claim limitations or elements of claims 15, 16 and 17 of the '748 patent are absent in the Hoover Fusion vacuum cleaner and, accordingly, it is my opinion that there is no infringement. For these purposes, claim 15 is an independent claim and claims 16 and 17 are dependent therefrom. Since a dependent claim cannot be infringed if the claim from which it depends is not infringed, attention is here given only to claim 15.

Claim 15 of the '748 Patent

Elements 15.1 through 15.11

Elements 15.1 through 15.11 of the '748 patent are either the same as elements 14.1 through 14.11 of the '515 patent, or differ from those elements or claim limitations in ways that are immaterial here. Thus, for the reasons discussed above, the Hoover Fusion vacuum cleaner does not have elements 15.2, 15.3, 15.5, or 15.7. The remaining elements or limitations are not addressed, since the absence of a single element or limitation is sufficient for non-infringement. In that regard, the fact that many of the claim elements or limitations may be found in the Hoover Fusion vacuum cleaner, or otherwise not treated in a non-infringement analysis, is irrelevant.

Element 15.13 – "and means for generating an airflow"

As presented above with regard to element 14.17, the Hoover Fusion vacuum cleaner does not have the means for generating an airflow as construed by this Court. The Court's claim construction Order in this case identifies sixteen (16) terms that it construed "as used in the asserted claims of [the patents-in-

suit]." The Court did not limit any particular term to any particular patent, but construed the terms "as used in the asserted claims." Accordingly, I have attributed the Court's construction of the various terms as they have appeared in the asserted claims. Since the term "means for generating an airflow" is the same term in element 15.13 as in element 14.17, previously treated herein, my opinion regarding the absence of that element in the Fusion vacuum cleaner is the same for both claims.

Element 15.16 – "the improvement which comprises: a disc means provided on the outside of the cyclone intermediate the receiving chamber and the air outlet of the container and around to the longitudinal axis of the cyclone"

The Hoover Fusion vacuum cleaner does not have this claim element or limitation.

In the Hoover Fusion vacuum cleaner, the disk challenged by Dyson is not provided on the outside of the cyclone, nor is it intermediate the receiving chamber and the air outlet. In fact, the disk of the Hoover Fusion product is not on the outside of the cyclone, but rather is secured about an upper portion of the receiving chamber. Further, in the context of the '748 patent, it is not intermediate the receiving chamber and the air outlet of the container, as required by the claim, but in fact extends below the boundary of the receiving chamber. A person of ordinary skill in the art, viewing the '748 patent, would recognize that the disk 20 is maintained between or in the middle of the receiving chamber 15 and the air outlet of the container 13g. This relationship is absent in the Hoover Fusion vacuum cleaner, in which the purported disk is below the top of the

Element 1.12 – "and means for generating an airflow"

As presented above with respect to element 15.13 of the '748 patent, the Court has construed the term "means for generating an air flow" for all of the asserted claims of the patent and, for reasons earlier stated, it is presented that this limitation does not exist in the Hoover Fusion product and, accordingly, there can be no infringement. The opinions presented above with respect to element 15.13 of the '748 patent and element 14.17 of the '515 patent, are incorporated here and, for those reasons, there is no infringement of claim 1 of the '008 patent.

Element 1.16 – "wherein the shroud means is mounted at one end below the air inlet to the cyclone and extends along the outer surface with the other end at a position intermediate to the cone opening and the air inlet to the cyclone"

This claim expressly requires that the shroud be "mounted at one end below the air inlet to the cyclone." In the Fusion product, the shroud or filter member is actually mounted with one end above the air inlet to the cyclone. The assembly and disassembly of the shroud and cyclone structures makes this apparent. Accordingly, this element or claim limitation is absent in the Hoover Fusion product and there is no infringement.

The Jones Report seeks to redefine the shroud. A person of ordinary skill in the art would recognize the shroud to be the entire assembly of which the perforated portion is a part. Indeed, a person of ordinary skill in the art reviewing the '008 patent and the figures thereof, would fully appreciate that the shroud is not just the portion having perforations therein. Indeed, the patent refers to the